

## ABSTRACT OF THE DISCLOSURE

[0038] A system and method for generating a sequence of 2D addresses, the sequence having the property of a Hamming distance of one between consecutive addresses and the circular property, where D is an arbitrary integer. A sequence of length equal to the next power of 2, from 2D, is used to determine the sequence of 2D addresses. The sequence of addresses is used in an asynchronous first-in-first-out (FIFO) data structure, which may include, for example, a FIFO memory having a depth D and a code generator coupled to the FIFO memory. The first code sequence may be generated from a second code sequence by removing one or more pairs of mirrored codes of the second code sequence.